UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,394	04/07/2000	Preeti N. Bhoj	10992635-1	2447

22879   7590   06/18/2003

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER
NARAYANASWAMY, SINDYA

·ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary		Application No.	Applicant(s)
		09/545,394	BHOJ ET AL.
		Examiner	Art Unit
		Sindya Narayanaswamy	2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *07 August 2000* .

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-18* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

1.   Claims 1 - 18 are presented for examination.

2.   It is noted that although the present application does contain line numbers in the

specification and claims, the line numbers in the claims do not correspond to the preferred

format. The preferred format is to number each line of every claim, with each claim beginning

with line 1. For ease of reference by both the Examiner and Applicant all future correspondence

should include the recommended line numbering.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
> in section 102 of this title, if the differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

2.   Claims 1-16 are rejected under 35 U.S.C 103(a) being unpatentable over Smith, US-
5,878,224 in view of Rawson, III et al, US-5,265,252 (hereinafter Rawson).

3.   As per claims 1 and 9, the Smith teaches an admission control system for a server

application system, comprising:

        a request/listen queue (read mass storage as queue) that stores incoming requests before

they are serviced by the server application (402, Fig. 4);

        an actuator coupled to the queue to determine the input rate of requests from the listen

queue during previous processing cycles, to send a target number of requests to the request queue

from the listen queue and the discard queue during the next processing cycle and a controller coupled to the actuator and the request queue to determine the target number based on the difference between the actual and the desired queue occupancy of the request queue (Fig. 4, 400; col. 2, lines 50-61).

4.   Smith does not teach a discard queue that stores requests to be discarded. However, Rawson teaches a discard queue (card request queue) that stores requests to be discarded (col. 5, lines 38-44). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Rawson with Smith in order to create a queue to hold requests to be discarded if the target number of requests has been exceeded. One of ordinary skill in the art at the time of the invention would have been motivated to do so because requests are not lost or rejected due to system overload.

5.   As per claims 2 and 10, Smith teaches the system substantially as claimed wherein the target number of requests (incoming workload is matched to the transaction workload) are sent to the request queue during the current processing cycle if the input rate is greater than or equal to the target number (reducing rate of transaction acceptance) (col. 2, lines 50-62).

6.   Smith does not teach the system of sending remaining requests to the discard queue. However, Rawson teaches the system of sending remaining requests to the discard queue (card request queue) (col. 5, lines 38-49). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Rawson with Smith in order to create a

system where overflow requests are temporarily diverted to a storing (discard) queue. One of

ordinary skill in the art would have been motivated to do so in order to prevent requests from

being ignored due to system overload.

7.   As per claims 3 and 11, Smith teaches the system wherein the actuator determines which

requests are sent to the request queue so long as the total number of the requests sent to the

request queue is equal to the target number (Fig. 5, col. 2, lines 50-61). Smith does not teach the

system wherein the actuator randomly determines which requests are to be sent to the discard

queue. However, Rawson teaches the system wherein the actuator randomly determines which

requests are sent to the discard queue (col. 5, lines 38-49). It would have been obvious to one of

ordinary skill in the art at the time of the invention to combine the teachings of Smith and

Rawson in order to create a system where an actuator directs requests to a request queue and a

discard queue. One of ordinary skill in the art would have been motivated to do so because it

prevents system overload and threshold violations.

8.   As per claims 4 and 12, Smith and Rawson do not teach the adaptive admission control

system wherein if the actuator decides to send a request to the request queue, the actuator

determines if the request is a new session request and, if so, sends an existing session request

from the discard queue instead of the new request to the request queue and discards the new

request to the discard queue. However, it would have been obvious to one of ordinary skill in the

art at the time of the invention to teach the adaptive admission control system wherein if the

actuator decides to send a request to the request queue, the actuator determines if the request is a

new session request and, if so sends an existing session request from the discard queue instead of the new request to the request queue and discards the new request to the discard queue because it would allow for a first in first out queuing system where requests are processed in order.

9.   As per claims 5 and 13, Rawson teaches the system wherein the actuator sends the target number of requests from both the listen queue and the discard queue to the request queue if the input rate is less than the target number (col. 5, lines 38-49).

10.   As per claims 6 and 14, Rawson and Smith do not teach the system wherein the actuator retrieves requests from the discard queue by first pulling requests from an existing session queue of the discard queue. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to create a system where requests are retrieved from the existing session of the discard queue first in order because it insures that requests are processed in the order that they are made.

11.   As per claims 7 and 15, Rawson teaches a control system wherein the discard queue comprises an existing session request discard queue and a new session request discard queue (94/32-94/34, Fig. 3).

12.   As per claims 8 and 16, Rawson and Smith do not teach the adaptive admission control system wherein the discard queue is cleaned up after every predetermined number of processing

cycle. However, it would have been obvious to one of ordinary skill in the art at the time of the

invention to clean up the discard queue because it would provide for a refreshed queue.

13.   Claims 17 and 18 are rejected under 35 U.S.C 103(a) being unpatentable over Smith, US-

5,878,224 in view of Rawson, III et al, US-5,265,252 (hereinafter Rawson) further in view of

the Applicant's Admitted Prior Art (hereinafter AAPA).

14.   As per claim 17, Smith and Rawson do not teach the system wherein the server

application module is a TCP/IP-based server application. However, the AAPA teaches the

system wherein the server application module is a TCP/IP-based server application (page 2, lines

5-12). It would have been obvious to one of ordinary skill in the art at the time of the invention

to combine the teachings of the AAPA with Smith and Rawson in order to create a server

application module with a TCP/IP-based application. One of ordinary skill in the art at the time

of the invention would have been motivated to do so because it is a protocol commonly used in

the art to enable internetworking.

15.   As per claim 18, Smith and Rawson do not teach the system wherein the server

application module is a web server application. However, the AAPA teaches the system wherein

the server application module is a web server application (page 2, lines 18-25). It would have

been obvious to one of ordinary skill in the art at the time of the invention to combine the

teachings of the AAPA with Smith and Rawson in order to create a system capable of providing

web-based services. One of ordinary skill in the art at the time of the invention would have been

motivated to do because it allows for a system of web-based transactions to be implemented.

Conclusion

16.   The prior art made of record and not relied upon is considered pertinent to applicant's
disclosure:
    a.   "Web Based GUI Server and Method For Telecommunications Nodes," Broulik
et al, US-6,323881 B1.
    b.   "Queuing Structure and Method For Priorization of Frames in a Network Switch,"
Erimli et al, US-6,487,212 B1.
    c.   "Adaptive Rate Based Congestion Control in Packet Networks," Marin et al, US-
5,936,940.
    d.   "Method and System For Measuring queue Length and Delay," Abbott et al., US-
6,314,463 B1.
    e.   "Data Transfer Apparatus and Method Using congestion Recovery-type and
Congestion Avoidance-type Data Transfers," Yoshimura et al., US-6,125,397.
    f.   "Self-Adaptive Processor Overload Control System," Bodner, US-6,542,950 B1.
    g.   "Queueing Device For the Selection of Requests for Access To a Storage
Medium, " Balakian, US-3,623,006.
    h.   "Queue Measurement Apparatus and Methodology," Rusu et al, US-5,938,749.
    i.   "Queue Mangement System Capable of Controlling Priority and Jitter," Kim, US-
6,15,791 B1.
    j.   "Method and System for Providing Computer Storage Access With quality of
Service Guarantees," Bruno et al, US-6,434,631.
    k.   "ERICA: Explicit Rate Indication For Congestion Avoidance in ATM Networks,"
Jain et al., US-5,805,577.

17.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sindya Narayanaswamy whose telephone number is (703) 305-

8473. The examiner can normally be reached on 8 am to 5 pm, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 305-5404 for regular

communications and (703) 305-5404 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

Sindya Narayanaswamy
June 3, 2003

BHARAT BAROT
PRIMARY EXAMINER